

INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)



Applicant's or agent's file reference PF020160	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP 03/50899	International filing date (day/month/year) 26.11.2003	Priority date (day/month/year) 09.12.2002
International Patent Classification (IPC) or both national classification and IPC H01P1/208		
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- This International preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

- This report contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand 07.07.2004	Date of completion of this report 17.05.2005
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International application No. PCT/EP 03/50899

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-6 as originally filed

Claims, Numbers

1-8 as originally filed

Drawings, Sheets

1/5-5/5 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	2-8
	No: Claims	1
Inventive step (IS)	Yes: Claims	2,4
	No: Claims	1,3,5-8
Industrial applicability (IA)	Yes: Claims	1-8
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Reference is made to the following documents:

D1: EP-A-0 401 995

D2: SCHMIEDEL H ET AL INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS: "LOW-COST WAVEGUIDE FILTERS WITH PRINTED-CIRCUIT INSERTS" 1996 IEEE MTT-S INTERNATIONAL MICROWAVE SYMPOSIUM DIGEST. SAN FRANCISCO, JUNE 17 - 21, 1996, IEEE MTT-S INTERNATIONAL MICROWAVE SYMPOSIUM DIGEST, NEW YORK, IEEE, US, vol. VOL. 2, 17 June 1996 (1996-06-17), pages 611-614, XP000731944 ISBN: 0-7803-3247-4

2.1 Claim 1 is not clear, contrary to Art. 6 PCT.

The expression "floating insert" has not a well defined meaning in the technical context of the present application. As follows from the description, page 2, lines 10-14, it refers to a metal insert which is not electrically linked to the waveguide so that its potential is floating. However, in the absence of any reference to a supporting material, it is not clear how a metallic insert can be hold within the iris without being linked to the waveguide. As follows from the application documents, i.e. description, claims and drawings, the only supporting means disclosed is a dielectric block. Thus it appears that these features, i.e. a more precise definition of the floating insert and the dielectric block supporting it are essential features for the definition of the invention and should be included in the independent claim.

Bearing in mind the above considerations, it is considered that the subject-matter of claim 1, as far as it can be presently understood, is anticipated by D1. With reference to Fig. 2 and col. 3, lines 40-47, D1 discloses a waveguide filter comprising a cavity delimited by two conductive irises (44, 46) and metallic inserts placed in the irises. Thus the subject-matter of claim 1 is not new.

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- 2.2 As regard the claims appended to claim 1, the additional features of claims 3 do not clarify the subject-matter of claim 1, since it is not specified that the block of dielectric foam is within the iris and supports the insert. In this respect, the addition of a dielectric foam within the filter of D1 would be an obvious step, in order to reduce the size of the filter. Concerning claims 5 and 6, it is also considered that they do not contribute to the inventive step of any claim to which they refer.
- 2.3 The features of claims 2 and 4 are not considered obvious having regard to the state of the art represented by D1 or D2, and bearing in mind the required clarification following from the objection raised in point 2.1 above.
- 3.1 Claim 7 is not clear, contrary to Art. 6 PCT.

As follows from the description and drawings, the technical objective of the application is achieved in that a metal insert is placed within one of the irises of the filter. However, the wording of claim 7 does not specify that the metallic floating insert be placed within the iris. Since this independent claim does not contain this feature it does not meet the requirement following from Article 6 PCT taken in combination with Rule 6.3(b) PCT that any independent claim must contain all the technical features essential to the definition of the invention.

- 3.2 Bearing in mind the preceding objection, it is furthermore considered that the subject-matter of claim 7 does not involve an inventive step within the meaning of Art. 33 (3) PCT.

With reference to Fig. 2 and pages 611-612, document D2 discloses a waveguide filter with printed circuit inserts within the waveguide, and its corresponding manufacturing method. The subject-matter of claim 7 differs from the content of D2 only in that the filter comprises irises. However, this feature is considered an obvious alternative for the implementation of the input/output of the filter, so that it is considered that claim 7 does not involve an inventive step over D2.

The additional features of claim 8 are also known from D2.